San Mateo Creek Basin

DRAFT - FOR DISCUSSION PURPOSES ONLY

San Mateo Creek Basin Background

- The SMC Basin comprises approximately 321 square miles within the Rio San Jose drainage basin in McKinley and Cibola Counties, New Mexico
- There are numerous legacy uranium mines with recorded production and 4 legacy uranium mill sites within the San Mateo Creek drainage basin
- Underground workings connected over large area of the basin
- Thousands of exploratory boreholes provide conduit between different aquifer formations

San Mateo Creek Basin Background

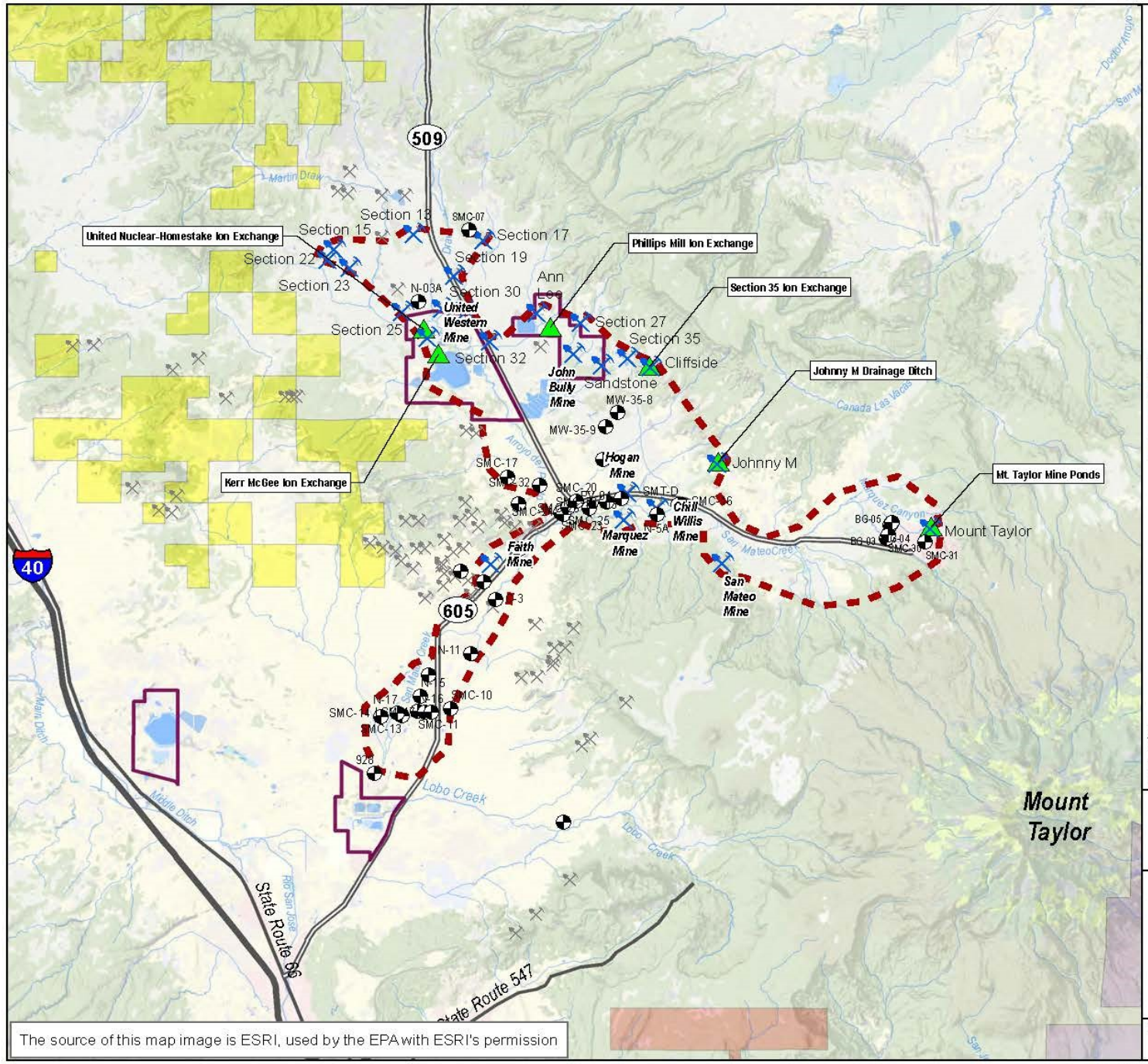
- More than 150 billion gallons of water were pumped from aquifers between 1956 and 1982
- Mine discharge water infiltrated into the soils and sediment and significantly re-saturated portions of the shallow and underlying bedrock aquifers
- Tailing liquids from the former uranium mills also seeped downward into the alluvium and underlying bedrock aquifers
- These operations have contributed to degradation of the groundwater quality (Private Wells above Federal Drinking Water Standard)

Impacts of Mine Water Discharge

- Uranium and gross alpha present in private drinking water wells above drinking water standards
- Documented contamination of the shallow aquifer
- Shallow aquifer in direct contact with multiple deeper aquifers
- Documented migration of hazardous substances to underlying aquifers
- Hazardous substances could potentially impact public water supplies within the district

San Mateo Creek Basin

- One of the objectives of the Grants Mining District Five-year is to Assess Water Supply Sources for Contamination
- EPA has conducted a Phase I(2016) and is completing a Phase II Ground Water Investigation (2018) within the San Mateo Basin
- EPA is currently evaluating this site for potential NPL consideration and seeking input from communities and state and tribal governments
- Based on the presence of uranium and gross alpha in private drinking water wells EPA asked New Mexico if Superfund would be an appropriate vehicle to address the problem.
- EPA received a letter of support from New Mexico on January 12, 2018.



The source of this map image is ESRI, used by the EPA with ESRI's permission

New Mexico

Legend

- Well Location
- Wet Mine
- Locations of Interest
- Mine Location
- Area of Interest
- NRC License Boundary (Approximate)
- Acoma Pueblo Land
- Laguna Pueblo Land
- Navajo Nation Land

N

0 3 6

Miles

CERCLIS ID: NMN000606847
TDD NO: 19/WESTON-042-17-001

SOURCE: U.S. Geological Survey, National Hydrography Dataset and National Elevation Dataset, San Mateo Creek Basin, New Mexico 2016

USEPA REGION 6

FIGURE
AREA OF INTEREST
SAN MATEO CREEK BASIN
URANIUM LEGACY SITE
CIBOLA & MCKINLEY COUNTIES,
NEW MEXICO

DATE	PROJECT NO	SCALE
JANUARY, 2018	20600.012.001.1048.01	AS SHOWN

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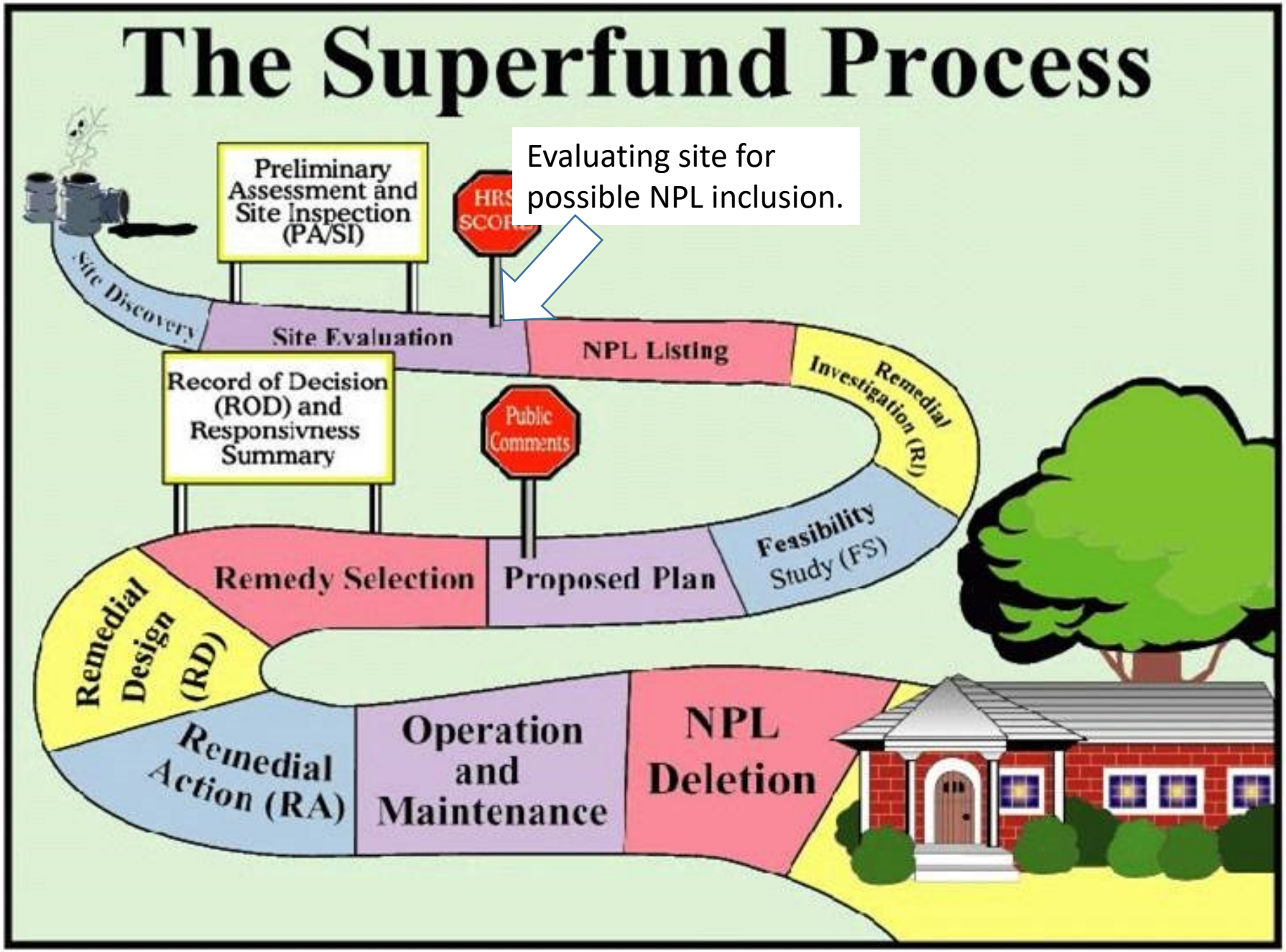
The Superfund Process



Community Involvement

- Pre-NPL Listing
  - Seek community input
  - Consult with State
  - Consult with Tribes
- NPL Listing
  - Publication of Proposed Rule and Public Comment Period
  - Publication of Final Rule and Response to Comments

Community Involvement

- Pre-Remedial Investigation (Pre-RI):
  - Community Interviews with local officials, community residents, public interest groups or other interested or affected parties to solicit their concerns and information needs and to learn how and when citizens would like to be involved in the Superfund process.

Community Involvement

- Community Involvement Plan (CIP): NCP 40 CFR 300.430(c)(2)(ii)(A-C)
- Prepare CIP based on community interviews and other relevant information Publication of Proposed Rule and Public Comment Period.
- Public Meeting: CERCLA 113(k)(2)(B)(iii) and 117 (a)(2)
- Establish Information Repository

Community Involvement

- TECHNICAL RESOURCES
  - Technical Assistance Grant
  - Technical Assistance Services for Communities (TASC)
  - Superfund Job Training Institute
  - Community Advisory Groups (CAG)

Technical Assistance Grant (TAG)

Provides money ($50,000) to community groups to procure a technical advisors to interpret and explain technical reports, site conditions, and EPA's proposed cleanup proposals and decisions at Superfund sites.

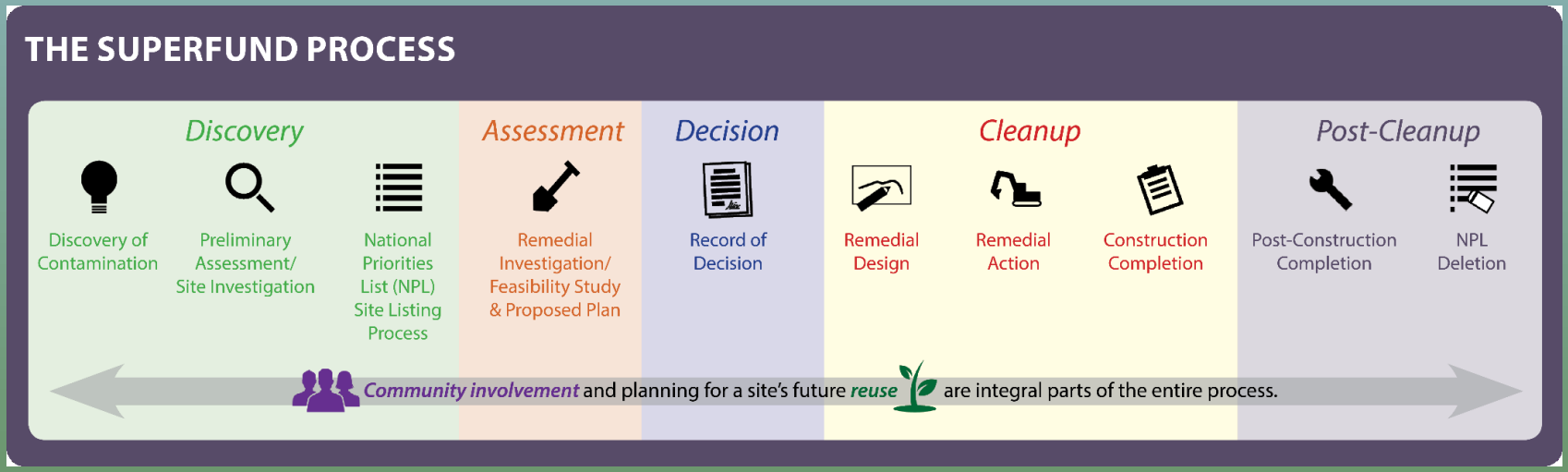
Technical Assistance Service for Communities (TASC)

- EPA sponsored program
- Different than TAG program
- Technical Expertise
- Community Education
- Review, summarize, and explain technical meetings, reports, documents and other info.
- Help communities formulate questions and draft comments on proposed environmental actions.

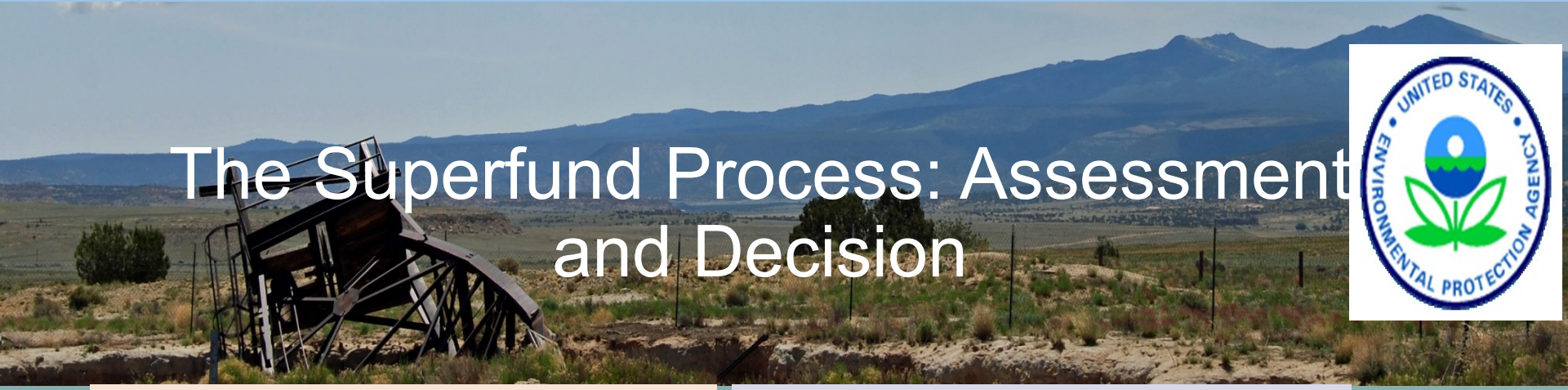
Benefits of the NPL

- Addresses wide-spread impacts of mine water discharge (no other state or federal program available)
- Provides a comprehensive framework to address the groundwater contamination
- Allow for multiple parties to participate in site investigation and clean-up
- Leverage resources to address historic mining operations (Federal and Private)

Overview of the Superfund Remedial Process (Long Term Cleanups)



Community Involvement and Superfund Reuse are integral components at every step in the Superfund Process



The Superfund Process: Assessment and Decision

Assessment

- Determines the nature and extent of contamination.
- Conduct community meeting before field work begins
- Assesses the treatability of site contamination
- Evaluates the potential performance and cost of treatment technologies.
- Develop Proposed Plan

Decision

- Publish Proposed Plan
- Conduct community meeting and seek input
- Develop the decision document incorporating input from community
- Explains which cleanup alternatives will be used.

The Superfund Process: Cleanup

- Remedial Design/Remedial Action
- Preparation and implementation of plans and specifications for applying site remedies.
- The bulk of the cleanup usually occurs during this phase.
- Inform community prior to beginning field work

- Construction Completion
- Identifies completion of physical cleanup construction.
- Although this does not necessarily indicate whether final cleanup levels have been achieved.

The Superfund Process
Post Cleanup

- Post Construction Completion
- Ensures that Superfund response actions provide for the long-term protection of human health and the environment.
- Included here are
  - Long-Term Response Actions (LTRA),
  - Operation and Maintenance,
  - Institutional Controls,
  - Five-Year Reviews,
  - Remedy Optimization.

- NPL Deletion
- Removes a site from the NPL once
  - all response actions are complete and
  - all cleanup goals have been achieved.
- Inform Community of the Deletion

Enforcement First

- Polluters Pay
  - Where appropriate, EPA pursues Potentially Responsible Parties (PRPs) to perform (or pay for) work necessary to mitigate risks presented by hazardous substances.
- Enforcement:
  - Identifies PRP's liability
    - Owner/operator, generator and/or transporters
  - Identifies PRP viability
  - Engage viable PRPs in negotiation for an administrative order for PRP to perform or pay for response.

Questions

- Contact Information:

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